IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 09/684,472
Confirmation No. 4021
5 Filing Date ....October 6, 2000
Inventorship ....Krishnamoorthy et al.
Group Art Unit..2154
Examiner ....Lee, Philip C.
Attorney's Docket No. 200308343-1
10 Title: MODULAR, DYNAMICALLY EXTENSIBLE, AND INTEGRATED
STORAGE AREA NETWORK MANAGEMENT SYSTEM

RESPONSE TO OFFICE ACTION MAILED JANUARY 30, 2004

15
To: Mail Stop: Non-Fee Amendment
        Commissioner for Patents
        P.O. Box 1450
        Alexandria, VA 22313-1450

20 From: Keith W. Saunders
            Lee & Hayes, PLLC
            421 W. Riverside Avenue, Suite 500
            Spokane, WA 99201

25   **INTRODUCTORY COMMENTS**

        This Reply under 37 C.F.R. 1.111 is in response to a non-final (and

first) Office Action mailed January 30, 2004. Please amend the above-

identified patent application in accordance with the directions set forth below.

        Claims 1-17 were pending and were rejected in the Office Action. No

30 claims are canceled with this Reply, but claims 18-20 are newly added.

Hence, claims 1-20 are presented for examination.

PATENT APPLICATION

ATTORNEY DOCKET NO. ___200308343-1___

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

OFFICIAL

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Confirmation No.: 4021

Inventor(s): Suban Krishnamoorthy et al.

Examiner: LEE, Philip C

Application No.: 09/684,472

Group Art Unit: 2154

Filing Date: 10/06/2000

Title: Modular, Dynamically Extensible, and Integrated Storage Area Network Management System

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APR 2 9 2004

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

(X) Response/Amendment   ( ) Petition to extend time to respond
( ) New fee as calculated below   ( ) Supplemental Declaration
(X) No additional fee   (Address envelope to "Mail Stop Non-Fee Amendment")
_____ (fee $_____)
( ) Other: _____

(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE		(7) ADDITIONAL FEES
TOTAL CLAIMS	20	MINUS	20	= 0	X	$18	$ 0
INDEP. CLAIMS	2	MINUS	3	= 0	X	$86	$ 0
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM						+ $290	$ 0

EXTENSION FEE	1ST MONTH $110.00	2ND MONTH $420.00	3RD MONTH $950.00	4TH MONTH $1480.00	$ 0
				OTHER FEES	$
				TOTAL ADDITIONAL FEE FOR THIS AMENDMENT	$ 0

Charge $___0___ to Deposit Account 08-2025. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Suban Krishnamoorthy et al.

(X) I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number _(703) 872-9306_ on _04/29/2004_
Number of pages: 19

Typed Name: Cheryl Boles
Signature: _Cheryl Boles_

By _Keith W. Saunders_

Keith W. Saunders

Attorney/Agent for Applicant(s)
Reg. No. 41,462

Date: 04/29/2004

Telephone No. (509) 324-9256

AMENDMENTS TO THE DRAWINGS

No Amendments to the drawings are made herein.

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AMENDMENTS TO THE WRITTEN DESCRIPTION

Please replace the paragraph at page 6, lines 29-32 with the following paragraph:

5
The storage systems could be RAID systems with controllers, tape libraries, and/or Just Bunch ~~eO~~ Of Disks (JBOD) in a shelf. Sometimes, the storage could be even a single disk connected to the SAN. It is possible that one or more hosts (servers) could have storage 110 that is directly attached to it instead of the SAN.

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Please replace the paragraph at page 8, lines 4-13 with the following paragraph:

The SAN has heterogeneous devices 213, 214, 215 such as switches, hubs, routers, storage, and others. Some of the
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storage devices 213 may be directly attached to the host while most of the devices 214 and 215 are attached to the SAN. Each device supports an interface to communicate with it, but these interfaces are not standardized. For example, a switch provides SNMP protocol for control, command and
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management. On the other hand, some storage devices provide SCSI protocol for management. Still other devices provide a command line interface (CLI) for management. ~~Some e-devices~~ Some devices, such as switches, provide HTML protocol interface. A device that provides SNMP support will
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have an SNMP agent and associated MIB(s).

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Please replace the paragraph at page 11, lines 12-16 with the following paragraph:

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During ~~day-today~~ day-to-day operation, one or more devices in the SAN may encounter errors and status changes. Some of these have to be logged for management and record keeping as well as later use by the SAN administrator or field service personnel. Some errors, such as failures of devices, may need the immediate attention of the SAN administrator and hence the administrator has to be notified immediately.

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